

## ABSTRACT

5       A permanent magnet field small DC motor includes an arc-shaped rare earth magnet  
of maximum thickness 1mm or less fabricated by compression molding from rare earth iron  
based melt-spun flakes and a binder. The magnet is provided with a certain specific portion  
at both ends in the circumferential direction, which has no back yoke when the magnet is  
press-fit in a soft-magnetic frame. The arc-shaped rare earth magnet fabricated by  
compression molding from a material containing more rare earth iron based melt-spun flakes  
10       exhibits simultaneous increase of both a remanence as a function of magnetizing field and  
a coercivity; and hence, exhibits a well-balanced demagnetization curve even in an  
unsaturated magnetized state.